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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,376

12/12/2005

Dieter Bechtold

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EXAMINER

SCULLY, STEVEN M

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,376	<b>Applicant(s)</b> BECHTOLD ET AL.	
	<b>Examiner</b> Steven Scully	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 20-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/12/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

**BATTERY HAVING SEALED CONTACT TERMINAL BUSHING**

Examiner: Scully    S.N.: 10/560,376    Art Unit: 1795    November 24, 2008

***Election/Restrictions***

1.     Applicant's election without traverse of Group I, claims 1-15, in the reply filed on October 20, 2008 is acknowledged. Accordingly, claims 16-19 are canceled. Claims 20-24 have been added and will be considered on their merits as well.

***Claim Rejections - 35 USC § 112***

2.     The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.     Claims 14-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the claims state "the contact element" which is inconsistent with the remainder of the specification. See [0019] of the instant specification. For examination purposes, "the contact element" is taken to be "the plastic sealing element." Applicant is asked to clarify.

***Claim Rejections - 35 USC § 103***

4.     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-15 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ovshinsky et al. (US5,558,950) in view of Schäfer (GB2,026,761) and Walsh et al. (US2002/0070215).

With respect to claim 1, Ovshinsky et al. disclose a metal hydride battery having a plastic housing comprising a plastic case and a plastic top. See Table 2. Ovshinsky et al. further recognize that plastic cases are extensively used in lead acid battery technology and has been easily adapted for other batteries such as NiMH hydride electric vehicle batteries. See column 3, lines 27-33. The battery would obviously have a terminal for the electrodes. See Figure 1.

Ovshinsky et al. do not disclose a plastic sealing element on the contact element. Schäfer discloses a battery having a terminal post (1) provided on the shank with parallel, peripheral ribs (4), and these ribs engage in complementary grooves in portion (5) moulded around it. The ribs (4) provide both firm, positive engagement with the plastics portion (5) on the terminal post (1), and a very long surface leakage path for the electrolyte, which ensures both fluid-tightness and mechanical strength. See page 1, lines 51-58. It would have been obvious to one of ordinary skill in the art at the time of

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the invention to use a plastic sealing element because Schäfer teaches it to ensure both fluid-tightness and mechanical strength. The plastic sealing element would be within the lid of the battery which lies flat against the housing wall at an interface.

Ovshinsky et al. in view of Schäfer do not disclose a battery wherein one of the support surface and the housing wall is at least partially transparent for a laser beam and the other is absorbent for the laser beam. However, it is well known to laser weld battery casings. Walsh et al. disclose a battery casing where portions of the container are laser welded. One of the layers is at least somewhat translucent while the other one is opaque, most often by adding carbon black to the thermoplastic material. The two layers are pressed together, whereby the surfaces to be joined are illuminated with a laser. The illumination is performed from the translucent side. The energy from the laser beam will be transformed into thermal energy when it hits the opaque layer, whereby it melts and the parts are joined by welding. See [0058]. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a translucent and an opaque layer in laser welding because Walsh et al. teaches it to allow the process to occur.

Further, with respect to independent claim 20, Ovshinsky et al. disclose a battery casing having a container (the lower and side portions) having an aperture in the upper portion where the lid is provided. See Figure 1.

With respect to claims 2-3, 8-10 and 21, as discussed above, Schäfer discloses a terminal having ribs for interlocking with the plastic seal for fluid-tightness and

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mechanical strength. It would have been obvious to provide this structure to the battery of Ovshinsky et al. for fluid-tightness and mechanical strength.

With respect to claims 4 and 22, Ovshinsky et al. disclose a plurality of cells in the battery linked by the terminal connector. See Figure 1.

With respect to claims 5-6 and 23-24, as discussed above, Walsh et al. disclose laser welding uses one translucent layer and one opaque layer. It would have been obvious to one having ordinary skill in the art at the time of the invention to have the housing be translucent while the lid was opaque or vice versa, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

With respect to claim 7, Walsh et al. disclose that the two layers are pressed together during laser welding. See [0058] of Walsh et al. Therefore, a weld bead would form.

With respect to claims 12-13, Walsh et al. disclose adding carbon black to improve light absorption, which is also interpreted as a colored layer. See [0058]. It would have been obvious to one of ordinary skill in the art at the time of the invention to add carbon black to the plastic casing of Ovshinsky et al. because Walsh et al. teaches it assists in forming an opaque layer.

With respect to claims 14-15, Schäfer discloses the plastic sealing member to have ribs for fluid-tightness and mechanical strength. The structure is clamped together in a liquid-tight manner to prevent the electrolyte from leaking out of the system. See page 1, lines 51-58 of Schäfer. It would have been obvious to one of ordinary skill in

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the art to have ribs on the plastic sealing member and a liquid-tight structure because Schäfer teaches preventing the electrolyte from leaking by ensuring both fluid-tightness and mechanical strength.

***Contact/Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Scully whose telephone number is (571)270-5267. The examiner can normally be reached on Monday to Friday 7:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on (571)272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. S./

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/Dah-Wei D. Yuan/

Supervisory Patent Examiner, Art Unit 1795